

What is claimed is:

1. An apparatus associated with a network, the apparatus comprising,
5 an input to receive a frame in a first format from a first node of the network, the first frame format identifying a first hierarchy in the network; and
a framing mechanism to add another data link layer header to the frame in the first format to form a frame in a second format, the second frame format identifying a second hierarchy in the network.
- 10 2. The apparatus of Claim 1, further comprising an output to transmit the frame in the second format to a second node of the network.
3. The apparatus of Claim 1, further comprising a processor to control operation
15 of the apparatus.
4. The apparatus of Claim 1, wherein the framing mechanism adds another trailer to the frame in the first format to form the frame in the second format.
- 20 5. The apparatus of Claim 1, wherein the frame in the first format includes a first field to hold an address specifying an address associated with a device in the network sending the frame in the first format.
6. The apparatus of Claim 1, wherein the frame in the first format includes a
25 second field to hold an address specifying an address associated with a device in the network to receive the frame in the first format.
7. The apparatus of Claim 1, wherein the apparatus comprises a switch.
- 30 8. The apparatus of Claim 1, wherein the apparatus comprises a bridge.
9. In an electronic device associated with a network, a method comprising the steps of,

taking action to receive a frame in a first frame format on an input of the electronic device, the first frame format identifying a first hierarchy of the network;
and

- 5 formatting the frame in the first frame format into a second frame format, the second frame format includes a header identifying a second hierarchy of the network.

10. The method of Claim 9, further comprising the step of forwarding the frame in the second format based on a destination address from the first frame format.

- 10 11. The method of Claim 9, wherein the step of formatting comprises the step of appending a trailer to the frame in the first frame format.

12. The method of Claim 9, wherein the step of formatting comprises the step of encapsulating the frame in the first frame format to format the frame into the second frame format.

13. The method of Claim 9, wherein the first frame format includes a first MAC source address and a first MAC destination address.

- 20 14. The method of Claim 9, wherein the second frame format includes a second MAC source address and a second MAC destination address.

- 15 15. In a network of electronic devices, a method for forwarding data from a first end node electronic device to a second end node electronic device, the method comprising the steps of,

formatting the data into a first format, the first format includes a first field to hold a data link layer address specifying the first end node electronic device and a second field to hold a data link layer address specifying the second end node electronic device;

- 30 forwarding the data in the first format from the first end node electronic device to a first intermediate node electronic device associated with the network;

encapsulating the data in the first format with a plurality of fields to format the data into a second format, the second format includes a first field to hold a data link layer address specifying the first intermediate node electronic device and a second

field to hold a data link layer address specifying a second intermediate node electronic device associated with the network; and

forwarding the data in the second format from the first intermediate node electronic device to the second intermediate node electronic device for forwarding of
5 the data in the first format to the second end node electronic device.

16. The method of Claim 15, wherein the step of forwarding the data in the second format from the first intermediate node electronic device to the second intermediate node electronic device for forwarding of the data in the first format to the second end
10 node electronic device, comprises the steps of,

forwarding the data in the second format from the first intermediate node electronic device to a first core edge device providing access to a first core of the network; and

the first core edge device taking action to route the data in the second format
15 to the second end node device.

17. The method of Claim 16, wherein the step of the first core edge device taking action to route the data in the second format to the second end node device includes the steps of,

20 adding a label to the data in second format at the first core edge device; and
forwarding the data in the second format to a second core edge device according to a path through the core of the network identified by the label.

18. The method of Claim 16, wherein the step of the first core edge device taking
25 action to route the data in the second format to the second end node device includes the steps of, forwarding the data in the second format to the second intermediate node electronic device for forwarding of the data in the first format to the second end node electronic device.

30 19. The method of Claim 16, wherein the core network is configured to route data in the MPLS protocol.

20. The method of Claim 15, wherein the first format comprises an Ethernet format.
21. The method of Claim 15, wherein the second frame format further includes a
5 field to hold a transmission error detection value.
22. The method of Claim 21, wherein the transmission error detection value comprises one of a checksum value and a cyclic redundancy check (CRC) value.
- 10 23. A device readable medium holding device readable instructions for performing a method in an electronic device associated with a network, a method comprising the steps of,
parsing a portion of a frame in a first frame format received on an input of the electronic device to identify a destination address of the frame, the first frame format
15 having a first data link layer source address and a first data link layer destination address; and
formatting the frame in the first frame format into a second frame format in the electronic device, the second frame format having a second data link layer source address and a second data link layer destination address.
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24. The method of Claim 23, further comprising the step of forwarding the frame in the second format based on the first data link layer destination address from the first frame format.
- 25 25. The method of Claim 23, wherein the step of formatting comprises the step of inserting the frame in the first frame format into a field of the frame in the second frame format.
26. The method of Claim 23, wherein the step of formatting comprises the step of
30 encapsulating the frame in the first frame format with a header having a field to hold a second data link layer source address, a field to hold a second data link layer destination address, and a trailer having a field to hold a transmission detection error value.